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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,041	01/22/2002	Alain Guesdon	218150US6X	1727
22850	7590	09/17/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			BUI, THACH H	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,041

Applicant(s)

GUESDON, ALAIN

Examiner

Thach H Bui

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Request For Reconsideration filed June 30, 2004 has been received and entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ausherman (U.S. Patent No. 4,136,826) in view of Cvikl (U.K. Patent 927,917).

Ausherman teaches a spray boom having three-dimensional structure (see Fig.

- 1). The structure has a triangular cross section of which is substantially isosceles.

Ausherman has all the features of the invention but Ausherman failed to teach a structure having two flat ladders, each ladder comprises an upper beam connected to a lower beam by girders and lower cross beams. Cvikl teaches a structure having two flat ladders (see Fig. 1) (2-2), each ladder comprises an upper beam (2) and connected to a lower beam by girders (1) and lower crossbeams (1). The structure comprises two upper beams (2) of which are side by side (see Fig. 1-5) and lower cross beams (1) hold the two ladders together to form a convergent three-dimensional structure. It would have been obvious to one skilled artisan in the art to modify the teachings of Ausherman and combine with Cvikl to have a spray boom having two flat ladders, each

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ladder comprises an upper beam connected to a lower beam by girders and the ladders are connected by cross beams to provide a stronger spraying boom. Both Ausherman and Cviki do not teach at least one of the girders and the upper beam of one of the ladders formed at an angle of 90 degrees and hollow beams; However, Cviki teaches a mean to join the girder(s) with the upper beam (2) at an alpha angle (see Fig. 3).

Therefore, it would have been obvious to one skilled artisan in the art to have made at least one of the girders and the upper beam of one of the ladders formed at an angle of 90 degrees to provide a stronger joint for the beam; therefore, to make the beam stronger and hollow beams to reduce the overall weight of the spray boom. Methods follow by apparatus.

Response to Arguments

3. Applicant's arguments filed June 30, 2004 have been fully considered but they are not persuasive. Applicant argued "as disclosed in the Specification, the manufacture of conventional triangular lattice structure for spray booms is plagued with several problems, including, but not limited to, difficulty in positioning and connecting several beams together, and the need to make very specialized cuts in each of the girders, including cutting the end of girders to be inclined in two directions with respect to a plane perpendicular to its longitudinal axis. It is clear that such a complex structure is cumbersome and expensive to manufacture. The present invention discloses a novel and advantageous method to manufacture spray booms that is less complicated and less expensive than conventional approaches by arranging the girders in a single plane

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with the support beams and inclining the end of each girder in at most a single direction with respect to a plane perpendicular to its longitudinal axis, making it simpler to cut each of the crossbeams". The Examiner acknowledged that; however, the Examiner examined the claim(s), not the Specification. The claim(s) recited "a method of manufacturing the spray boom comprising forming two flat ladders, each ladder comprising an upper beam connected to a lower beam by girders; producing lower crossbeams; and assembling the two ladders and the lower crossbeams to form a three dimensional structure". Ausherman teaches a spray boom having three-dimensional structure and the structure has a triangular cross section of which is substantially isosceles. Cviki teaches a structure having two flat ladders, each ladder comprises an upper beam and connected to a lower beam by girders and lower cross beams. The structure comprises two upper beams of which are side by side and lower cross beams holds the two ladders together to form a convergent three-dimensional structure. Therefore, it would have been obvious to one skilled artisan in the art to modify the teachings of Ausherman and combine with Cviki to have a spray boom having two flat ladders, each ladder comprises an upper beam connected to a lower beam by girders and the ladders are connected by cross beams to provide a stronger spraying boom.

Applicant's arguments have been fully considered but they are not persuasive and Applicant's arguments have been addressed in the above paragraphs.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thach H Bui whose telephone number is 703-305-0063 and/or 571-272-4898. The examiner can normally be reached on Monday-Friday, 7:30-4 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on 703-308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 and/or 571-273-4898.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.B.
09/09/2004



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